"APPROVED FOR RELEASE: 08/26/2000 C

CIA-RDP86-00513R001653910017-8

SULUTKO, L.1. (Kazan, SSSR)

On the problem of surgical therapy of scolioses. Acta chir. orthop. traum. cech. 29 no.41375-379 Ag '62. (SCOLIOSIS)

SULYAGIN, I. D.

Bee Culture

"Winter" honey flow for bees. Pchelovodstvo 29, No. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

(Metal-cutting tools--Standards)

MIKHAYLOV, D.V.; VIENIK, L.M.; SLUCHAYRV, P.N.; SULYAGIN, V.I.;

BARYKOVA, G.I., red.izd-va; GORDEYRVA, L.P., tekhn.red.

[Norms for the wear, strength and consumption of metal-cutting tools] Normy iznosa, stoikosti i raskhoda rezhushchego instrumenta. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1961. 174 p.

(MIRA 15:2)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye nauchno-issledcvatel'skikh i proyektnykh organizatsiy. Nauchno-issledovatel'skoye byuro tekhnicheskikh normativov. 2. Nauchno-issledcvatel'skoye byuro tekhnicheskikh normativov (for Mikhaylov, Vinnik, Sluchayev, Sulyagin).

SULYAN, B.

The 1921 EMG Servotest signal generator, p.50.
RADICTECHNIKA. (Magyar Cakentes Honvedelmi Szovetseg) Budapest.
Vol 6, no. 3, Mar 1956.

SCURCE: EEAL, Vol 5, no. 7, July 1956.

Sulvan, B.

High-stability source of voltage for verifying valve voltmeters. p.240

MERES ES AUTOMATIKA. (Merstechnikal es Automatizalasis Tudomanyos Egyesulet) Budapest, Hungary. Vol.7, no.8/9, 1959

Monthly List of East European Accessions (EEAI) LC, Vol.8, no.11 November 1959 Uncl.

\$/194/62/000/003/064/066 D271/D301

AUTHOR:

Sulyan, Bela

实验的数据<mark>是对自己的表示存储。因而他们是国际政策的对象</mark>的国际国际的政策的现在分词,但是国际政策的政策的发展。但但因为这些企业是国际的国际政策的。

TITLS:

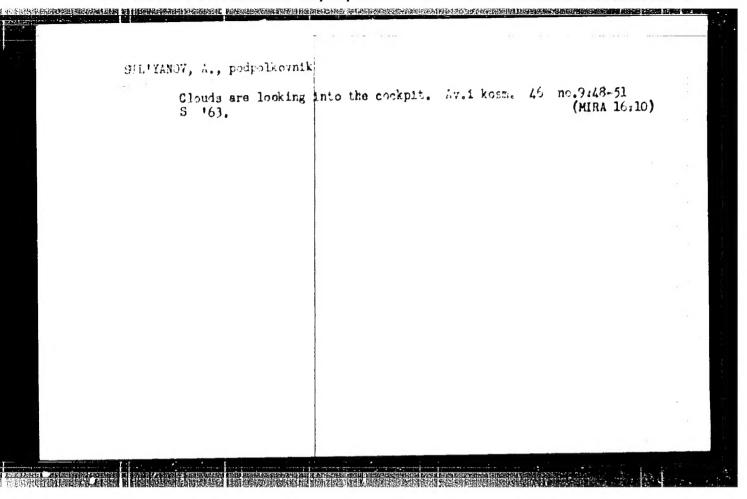
High frequency voltage stabilizer

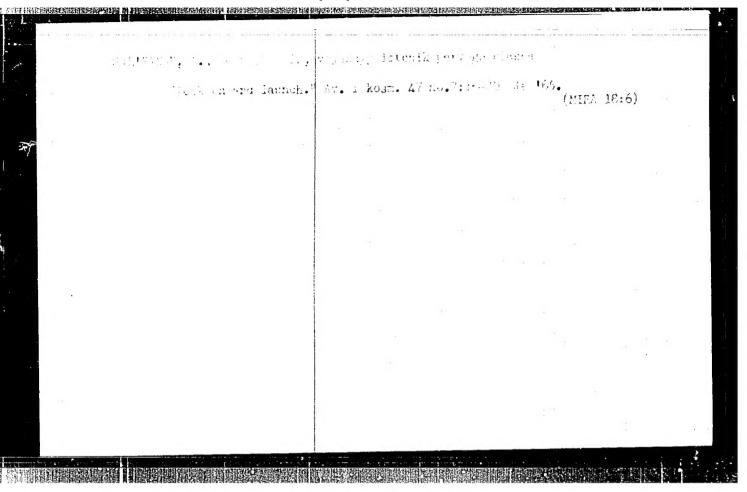
FERIOUICAL:

Referativnyy zhurnal, Avtomatika i radioelektronika, no. 3, 1962, abstract 3-7-202yu (Hungarian patent specification, cl. 21c, 67, no. 146986, 31.5.1960)

The stabilizer which is patented can produce a stable d.c. or a.c. voltage when the load is constant, or a stable a.c. voltage when the load is varying. It contains an oscillator, usual rectifying circuit and a rectifier for the a.c. supply of the anode. The voltage obtained from it supplies a HF oscillator which, after rectification, produces the control voltage. Mains variations from 250 to 150 V caused a change of 0.1% in the HF output voltage, when the described stabilizer was used. Abstracter's note: Complete translation.

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REDUIEU, Te., gwardli podadkovnik, vercency laterik per ego klassa;
SULYANOV, A., gwardli podpelkovnik, veycency laterik per ego klassa
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N '65.

(MIRA 18:10)

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* For Degree of Cardidate Biological Sciences	

L 9650	7-66 ETT (1)/ETP(e)/ETT(m)/EEC(k)-2/T/ETA(h) IJP(e) AT/ETA(h) SOURCE CODE: UR/0181/65/007/010/2978/2989
	R: Bir, G. L.; Bogomolov, V. H.; Krivitskiy, Ye. V.; Sulyatitskaya, T. Ye.
ORG:	Institute of Semiconductors AN SSSR, Leningrad (Institut poluprovodníkov AN
SSSR)	16
TITLE	Piezoresistance of partially reduced rutile at temperatures of 78-500°K
	: Fizika tverdogo tela, v. 7, no. 10, 1965, 2978-2989
TOPIC	TAGS: titanium dioxide, pressure effect, piezoelectric effect, electric con-
	rity, semiconductor research, semiconductor theory
	CT: Piezoresistance tensors of rutile are measured from 78 to 500°K for various strations of current carriers. The experimental equipment and procedure and the
-2	of the specimens are described in detail. A phenomonological description is for the effect of piezoresistance in rutile. The piezoresistance tensor is defort the effect of piezoresistance in rutile.
-11	by seven independent constants. Temperature relationships are derived for imponents of the piezoresistance tensor. Data on conductance anisotropy and the
-3	c constants of rutile are used as a basis for calculating the seven coefficients instead of conductivity in rutile as functions of temperature. The effect of hydro-
	steconductivity in rutile as functions of temperature. The direct of the state of the electrical conductivity of rutile at room temperature is ingated. Data on hydrostatic stress agree well with measurements of uniaxial de-
Card	1./2
	2

L 9650-66

ACC NR: AP5025375

formation. The values and temperature behavior of the coefficients of elastoconductivity show that the minimum of the conduction band in this material is on the kaxis and also indicate that the band is not degenerate. High volumetric coefficients of piemoresistance and the anomalous behavior of these coefficients with respect to temperature are characteristic features of piezoresistance effects in rutile. The volumetric coefficients of elastoconductivity increase approximately as T^{-1} in the high temperature region, reaching a maximum of very close to 80 at a temperature of very nearly 100°K. These coefficients decrease slowly with a further reduction in temperature. Two models are proposed for explaining these high volumetric coefficients of piezoresistance: the first is based on the assumption that there are two conduction bands and that the donor impurities are completely ionized, while the second assumes an incompletely ionized impurity. Both of these models agree partially with the experimental data available for rutile, but neither of them gives a satisfactory explanation of all phenomena in itself. It is possible that a two-band model combined with incomplete impurity ionization may give a better approximation. The authors take this opportunity to thank V. P. Zhuze for the support he gave to this work and for all his consultation during its completion. As in our previous papers, we used rutile single crystals produced in A. S. Bebchuk's laboratory and oriented by T. B. Zhukova and A. I. Zaslavskiy to whom we also extend our gratitude. Orig. art. has: 6 figures, 19 formulas, 4-1, 12 161, 70

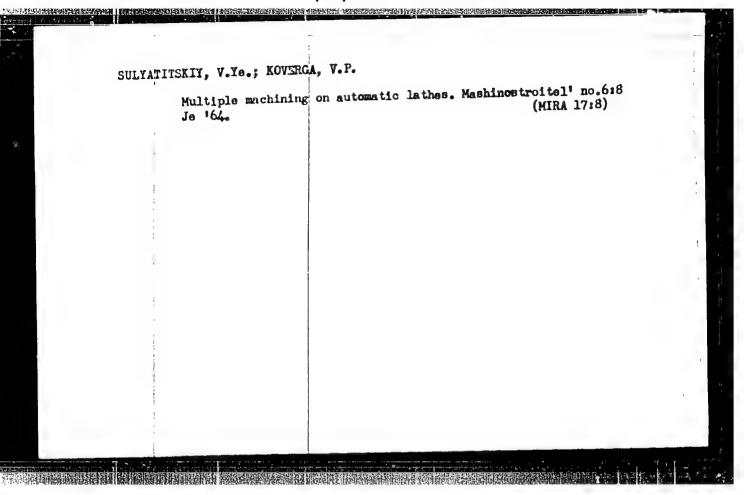
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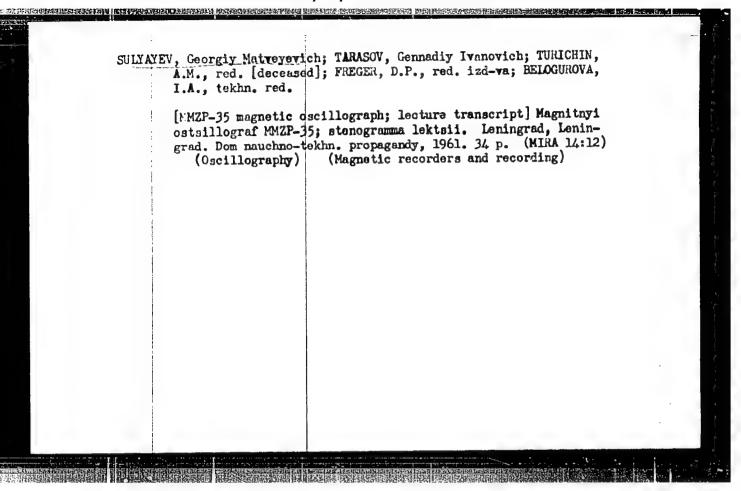
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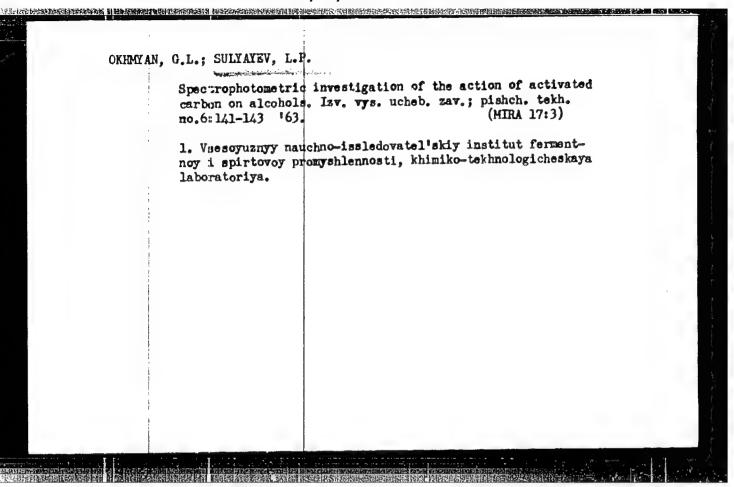
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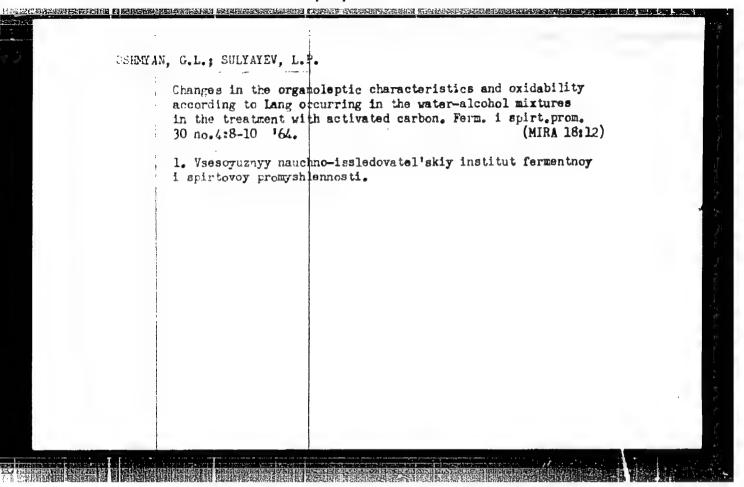
ORIG REF: 006/

OTH REF: 014









Category: USSR/Nuclear Physics - Elementary Particles

C-3

Abs Jour: Ref Zhur - Fizika, No 1, 1957 No 391

Author : Kozodayev, N., Sulyayev, P., Filippov, A., Shcherbakov, Yu.

Inst : Inst. of Nuclear Problems, USSR Acad, of Sciences

: Study of the Scattering of Negative T-Mesons in Hydrogen with the Aid of Title

a Diffusion Chamber.

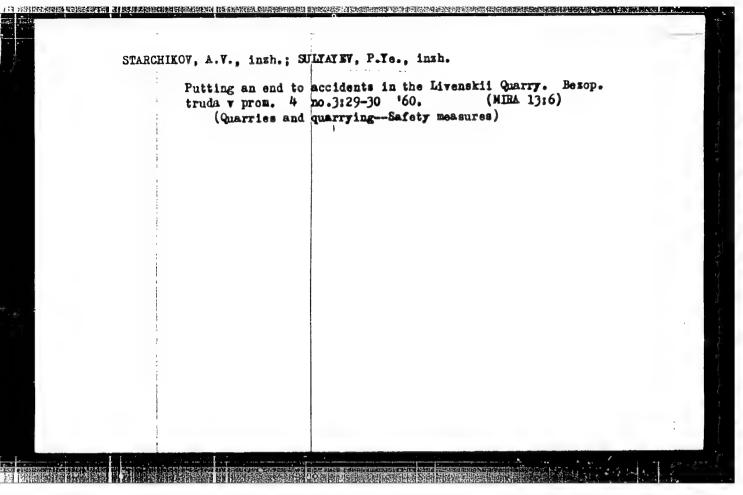
Orig Put : Doki. AN SSSR, 1956, 107, No 2, 236-239

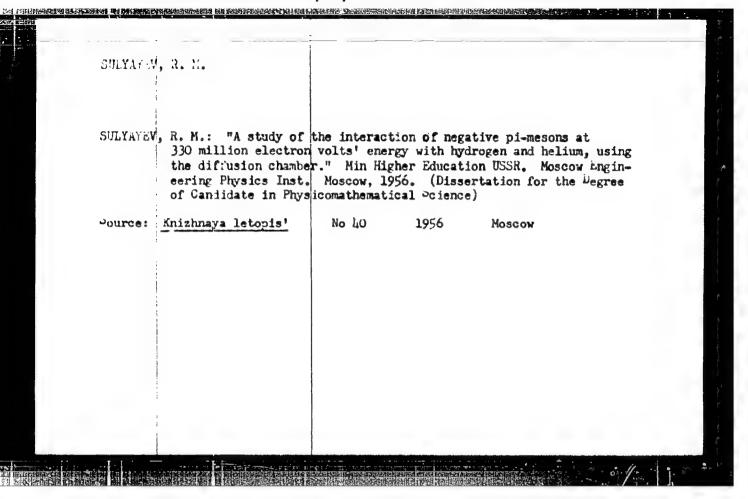
Abstract : Elastic scattering of 330 = 6 Mev T-mesons was studied. Eleven cases of

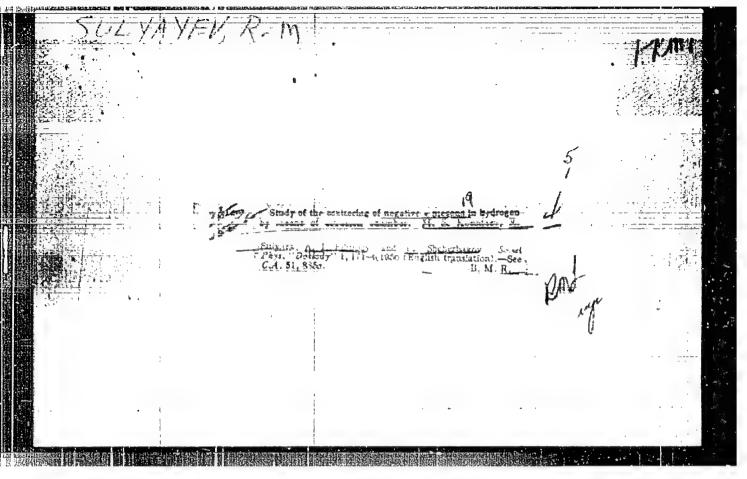
elastic scattering by protons and 13 cases of charge exchange were ob-

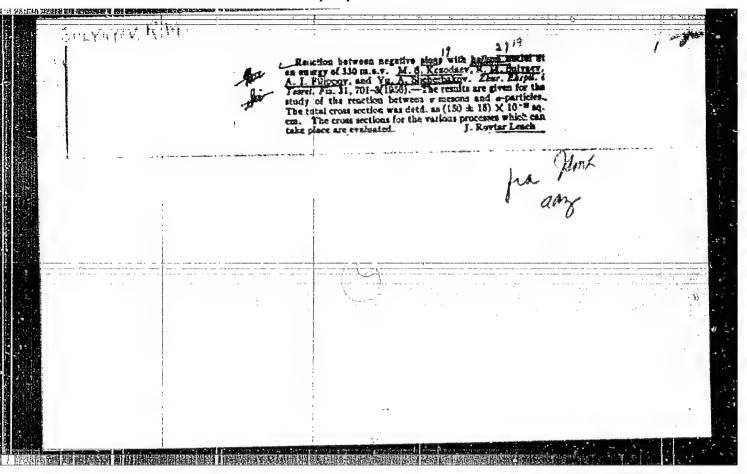
tained. The corresponding cross sections are 11 ± 4 and 13 ± 4 millibarns, and the total section is 24 ± 5 millibarns. The ratio ch.e/celast.= 1.2 ± 05 , while at lower energies it equals 2. The change in the value of the ratio ch.e/celast. indicates that for 330-Mev π -mesons one no longer sees a predominant interaction in the state with isotopic spin 3/2; the interaction in the state with T-1/2 becomes just as important.

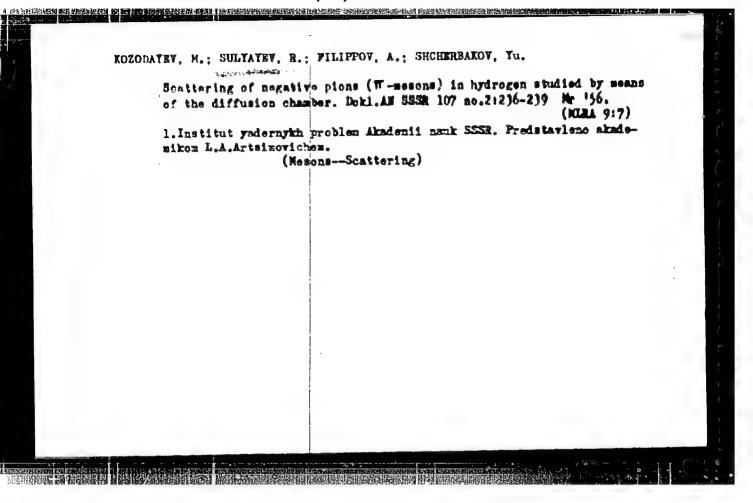
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120-6-7/36

AUTHORS:

TTTLE:

Vasilenko, A.T., Kozodayev, M.S., Sulyayev, R.M.,

Filippov, A.I. and Shcherbakov, Yu.A.

Reprojector for Evaluating Stereographic Exposures (Reproyektor dlya obrabotki stereofotografiy)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No.6, pp. 34 - 37 (USSR)

Due to the development of methods of recording nuclear processes by means of diffusion and bubble chambers, it is ABSTRACT: possible to obtain within a relatively short time hundreds of thousands of photographs depicting the traces of charged particles. As a result of this, the people concerned with the experiments are faced with the problem of using effective methods of evaluation of the obtained material. Usually, it is necessary to determine the co-ordinates of some points, the curvatures of the traces and the spatial angle between some such traces. In this paper, an instrument is described for measuring the spatial co-ordinates, the angles and curvatures of the trajectories of charged particles by reproducing the traces of the particles photographed on two stereoscopic exposures by the method of reprojection on to a mobile screen, using the same optical system which was used for taking Cardl/2 photographs. This permits observation on the instrument screens

Reprojector for Evaluating Stereographic Exposures. 120-6-7/36

APPROVED FOR RELEASE: 08/26/2000in GIA-RDR86:00513R00:16539100177987 of optical distortions. A sketch of the reprojector is shown in Fig. 1 and photographs of it are reproduced in Figs. 2 and 3. This reprojector is more universal than various instruments described earlier in Western literature. Data are given on the errors of measuring the co-ordinates and angles by means of this instrument; the maximum error in measuring the z co-ordinate did not exceed 0.4% and, for an angle of 60, the error in measuring the angle does not exceed 1. Acknowledgments are made to V.P. Tokarskiy, K.A. Baycher and A.G. Potekhin for their advice and for setting the instrument and to G.A. Vinogradova for helping to determine the metaping appears for helping to determine the metering errors. .
There are 3 figures and 7 references, 2 of which are Slavic.

United Institute for Nuclear Studies ASSOCIATION;

(Ob" yedinennyy Institut yadernykh issledovaniy)

May 20, 1957. SUBMITTED:

Library of Congress AVAILABLE:

Card 2/2

Yu.A.

56-4-35/54 Filippov, A.I., Shcherbakov, Kozodayev, M.S., Sulyayev, R.M., AUTHORS:

The Elastic Scattering of T - Mesons on Helium Nuclei at an Energy of 300 MeV (Uprugoye rasseyaniye 7 - mezonov na yad-TITLE:

rakh geliya pri energii 300 MeV)(Letter to the Editor)

Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol. 33, Nr 4, PERIODICAL: pp. 1047 - 1049 (USSR)

The elastic scattering was investigated by means of a diffusion ABSTRACT:

chamber (filled with helium of 15 atmospheres absolute pressure). 24000 photographs were taken and investigated for T-mesons with 300 ± 6 MeV and 11000 photographs for Tomesons with 273 + 7 MeV. The absolute scattering cross section for the - mesons was measured with 45 \pm 5 mb and that for T mesons with 72 + 11 mb. From the measured angular distribution it may be concluded that on the occasion of the scattering within small angles an interference effect is present between the coulombian scattering and the nuclear scattering. In a supplement the authors define their attitude regarding the recently

again discussed problem that the T-mesons have a spin differ-Card 1/2

The Alastic Scattering of + - Mesons on Helium Nuclei at an Energy of 300 MeV

ent from zero. More experimental material is gathered, in order to bring about a solution of this problem. There are 3 figures and 3 Slavic references.

ASSOCIATION: United Nuclear Research Institute

(Ob"yedinennyy institut yadernykh issledovaniy)

SUBMITTED: June 21, 1957 (initially) and July 25, 1957 (after revision)

AVAILABLE: Library of Congress

Card 2/2

307/120-58-6-8/32

AUTHORS: Kozodayev, M.S., Kulyukin, M. M., Sulyayev, R. M., Filippov, A. I. and Shcherbakov, Yu. A.

TITLE: A High Pressure Diffusion Chamber in a Pulsed Magnetic Field (Diffuzionnaya kamera vysokogo davleniya v impul'snom magnit-nom pole)

PERIODICAL: Pribory i tekhnika eksperimenta, 1958, Nr 6, pp 47-55 (USSR)

ABSTRACT: At the present time diffusion chambers are widely used in studies with accelerators. They have turned out to be sufficiently efficient for studying the interaction of neucleons and mesons with separate neucleons and light nuclei (Refs.1 and 2). An installation is described in the present paper which includes a diffusion chamber in a magnetic field which has been used in studying the interaction of protons and mesons with light nuclei. In distinction to other chambers, e.g. those described in Refs.4-6, the necessary temperature distribution in the sensitive layer is set up by means of an internal plexiglass cylinder, as described by Kozodayev et al (Refs.7 and 8). By this means it is possible to reduce the magnitude of horizontal gradients which are the main source of undesirable convections in the chamber. Such a reduction in convective distortion of tracks leads to an increase in the Card 1/4

SOV/120-58-6-8/32

A High Pressure Diffusion Chamber in a Pulsed Magnetic Field

accuracy in the measurement of momenta. Because of the strong equalising action of the plexiglass cylinder it was found possible to reduce the distance between the side boundaries of the sensitive layer and the outer walls of the chamber and thus improve the utilisation of the working volume of the magnet. Such a construction of the windows means that it is possible to remove the chamber from the magnet without dismantling the latter. It also means that it is possible to use selenoid magnets with small gaps between the coils which in turn makes it easier to obtain large magnetic fields with good homogeneity and economy of supplies. The installation described in this paper consists of a selenoid magnet MS-4. a system for evacuating and filling the chamber and a control panel which controls the accelerator, the chamber and the magnet. The external view of the installation is shown in Fig.1. The chamber was built in 1955 (Ref.3). The diameter of the working region of the chamber is 30 cm, the external diameter being 45.6 cm. The chamber was designed

Card 2/4

SOV/120-58-6-8/32

A High Pressure Diffusion Chamber in a Pulsed Magnetic Field

for work with light gases such as hydrogen, deuterium and helium at pressures up to 25 atm. The magnetic field in the sensitive region, which is produced by the selenoid magnet, MS-4, reaches up to 11 200 persted, in continuous operation and 16 000 persted in pulsed operation. The MS-4 magnet is illustrated in Fig.2, in which 1 is the photographic camera, 2 is the chamber, 3 are illuminators and 4 is the coil of the selenoid. There are 2 coils which consist of sectionalised windings of copper tubes. The gap between the coils in the magnet may be varied between 50 and 100 mm. The windings are cooled by distilled water under pressure of 5 atm. A sectional drawing of the diffusion chamber itself is given in Fig. 4. The body of the chamber, 1 , is of stainless steel, and is made from a single piece. Tubes are attached to the lower part of the body at 2 , in which acetone is circulating and thus cools the body. A'reservoir, 4, is included and collects condensed methyl alcohol, which is the working liquid. At the bottom of the chamber there is a copper disc, 5, which is used to equalise the temperature. The surface of the disc is electrolytically blackened. A plexiglass cylinder 7 is set up on this disc and, Card 3/4 as was mentioned above, this cylinder produces the necessary

SOV/120-58-6-8/32

A High Pressure Diffusion Chamber in a Pulsed Magnetic Field

temperature gradient. Experiments have shown that glass containing potassium salts gives a strong electron background. Estimates carried out for various kinds of glasses have shown that the main source of the background tracks is K⁴⁰. The magnetic field strongly localises the tracks of background electrons in the central part of the chamber. However, near the walls there is a non-sensitive zone 2-3 cm wide. The authors thank the following persons for help in the design and the construction of the installation: V.M.Soroko, K.A.Baycher, I.A.Shtyrin and P.T.Pavlov. Acknowledgments are also made to A.G.Potekhin and G.P.Zorin. There are 9 figures and 12 references, of which 7 are English and the rest are Soviet.

ASSOCIATION: Ob yedinenny institut yadernykh issledovaniy (Joint Institute for Nuclear Studies)

SUBMITTED: December 9, 1957.

Card 4/4

VOLOSHCHUK, V.I.; KUZHETSOV, SHCHERBAKOV, Yu.A.

Measurement of particle ionization by the relative photometry of track photographs.

1. Ob*yedimennyy institut yadernykh issledovaniy.

(Photography, Particle track)

(Ionization)

VASILENKO, A.T.; KULTUKIN, M.M.; SULTATEV, R.M.; FILIPPOV, A.I.;
SHCHKRBAKOV, Yu.A.

Semiautomatic comparator for processing stereoscopic photographs.
Prib.i tekh.eksp. no.4:56-63 Jl-Ag '60. (MIRA 13:9)

1. Ob*yedinennyy institut yadernykh issiedovaniy.
(Electronic measurements)
(Photography, Particle track)

KOZODAYEV, M.S.; KLYUKIN, M.M.; SULYAYEV, R.M.; FILIPPOV, A.I.; SHCHERBAKOV, Yu.A.

Inelastic interaction of K -mesons with helium nuclei at an energy of about 300 Mev. Zhur.eksp.i teor.fiz. 38 no.2:409-422 F 160.

(MIRA 14:5)

1. Ob"yedinennyy institut yadernykh issledovaniy.

(Mesons) (Helium)

821:09

s/056/60/038/03/07/033 B006/B014

AUTHORS:

Kozodayev, M. S., Kulyukin, M. M., Sulyayev, R. M.,

Filippov, A. I., Shcherbakov, Yu. A.

Interaction of Protons With He 4 Nuclei at an Energy of 630 Mev

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, TITLE:

PERIODICAL: Vol. 38, No. 3, pp. 708-715

TEXT: In the present paper the authors report on their investigations of the scattering of 630-Mev protons on helium nuclei. These investigations were conducted with a high-pressure diffusion cloud chamber. This method made it possible to investigate elastic and inelastic scattering in one and the same experiment. Fig. 1 provides a scheme of the experimental setup. The experimental area was 30 cm in diameter, and the height of the sensitive layer was 5 - 7 cm. The chamber was filled with helium up to 15 - 20 atm. The proton energy was a little lower than the maximum energy supplied by the synchrocyclotron, and amounted to (630+15) Mev. A picture was taken every 15 - 20 sec, and a total of 20,000 stereophotographs was thus obtained. Interaction events were isolated by interpreting the pictures three times with a stereomagnifier;

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Interaction of Fretons With He4 Nuclei at an

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a total of 444 scatterings of protons on helium nuclei was found. For the most part, interactions were found in two- and three-pronged stars, while only gart, interactions were found in four- and five-pronged stars, respectively. The total cross section was found to be (150 ± 13).10 27 cm2. Table 1 contains the reactions that may take place in the scattering of 630-Mev protons on the reactions that may take place in the scattering of opener provided in the helium nuclei. They are compiled in four groups and are discussed individually. nerium nuclei. They are compiled in four groups and are discussed individualing. Fig. 2 shows a picture of a pion pair production. Fig. 3 depicts the angular distribution of elastically scattered protons; do/do decreases rapidly with distribution of elastically scattered protons; do/dic decreases rapidly wi increasing angle. The smallest angle used was 50 in the center-of-gravity system. The elastic cross section was found to be (22.0 ± 4.5).10-27 cm² without correcting for small angles, and (24.0 ± 5.0).10-27 cm² with a correction. The cross section in the range of from 315 to 630 Mev hardly depended on energy. The angular distribution of elastically scattered protons was also computed within the optical model in Born approximation without considering the spin-orbit- and Coulomb interactions, both for 630 and considering the Spin-office and Coutomo Interactions, John for 500 and 515 Mev; the distribution curves obtained are likewise drawn in the diagram 212 MeV; the distribution curves obtained are likewise drawn in the diagram (Fig. 3). Inelastic collisions are divided into two groups and separately μ

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Interaction of Protons With He 4 Nuclei at an Energy of 630 Nev

S/056/60/038/03/07/033 B006/B014

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Interaction of Protons With He Huckei at an Energy of 630 Mev

S/056/60/038/03/07/033 B006/B014

scattering, The authors finally thank A. G. Potekhina, V. F. Poyenko, and Ye. A. Shvanev for their assistance. There are 4 figures, 2 tables, and 17 references, 7 of which are Soviet,

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED:

September 10, 1959

Card 4/4

84387

S/056/60/033/004/005/048 B004/B070

24.6900

AUTHORS:

Kozodayev, M. S., Kulyukin, M. M., Sulyayev, R. M.,

Filippov, A. I., Shcherbakov, Yu. A.

TITLE:

Angular and Momentum Distributions of Residual Nuclei in Inelastic Scattering of Fast m-Mesons and Protons From

Helium

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,

Vol. 39, No. 4(10), pp. 929-936

TEXT: The authors studied the angular and momentum distributions of the residual nuclei in quasifree interaction of fast pions and protons with helium nuclei. A high pressure diffusion chamber was employed and was irradiated by particle beams of the synchrocyclotron of their institute. The energy of the protons was $(630\pm15)\,\mathrm{Mev}$, that of the π^+ -meson $(237\pm7)\,\mathrm{Mev}$, and that of the π^- -meson $(330\pm6)\,\mathrm{Mev}$. 20,000 photographs were taken of proton and π^- -meson beams, and 10,000 of the beams of π^+ -mesons. The details of the experiment, evaluation of the plates, and the

Card 1/3

84387

Angular and Momentum Distributions of Residual Nuclei in Inelastic Scattering of Fast n-Mesons and Protons From Helium

\$/056/60/039/004/005/048 B004/B070

identification of events are described already in Refs. 8 and 9. Fig. 1 shows a typical quasielastic proton - proton scattering event. The observed reactions and their cross sections are given in Table 1. Fig. 2 shows the angular distribution of the residual nuclei in quasifree p + pscattering; Fig. 3 shows the angular distribution for the interaction of π"- and π-mesons. The residual nuclei were predominantly emitted forward. The anisotropy of the angular distribution is characterized by $\alpha = N_1/N_2$ (N_1 = number of nuclei emitted in the forward direction, N_2 = number of nuclei emitted backward). The values obtained are: $\alpha_{\rm p} = 2.17 \pm 0.15$, $\alpha_{\rm m} = 1.26 \pm 0.13$. The momentum distributions of the residual nuclei are shown in Fig. 4 (protons) and Fig. 5 (pions). The observed results are interpreted by the authors on the basis of the Serber -Goldberger model. When the additional momentum $\Delta \vec{p}$ imparted to the residual nucleus by the knocked-out nucleon is taken into account, a good agreement between the experimental and the calculated data is obtained (Fig. 6). The angular distribution for the reaction (1):

Card 2/3

FILIPPOV, A.I.; KULYUKIN, M.M.; PONTECORVO, B.; SHCHERRAKOV, Yu.A.;
SULYAYEV, R.M.; TSUPKO-SPTRIKOV, V.M.; ZAYMIDOROCA, O.A.

Observation of the reaction $u - + He^3 - H + V$. Dubna, Izdatel'skii otdel Ob*edinemogo in-tailedernykh issledovanii, 1961. 9 p.

(No subject heading)

31775 s/056/61/041/006/021/054 B102/B138

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Zaymidoroga, O. A., Kulyukin, M. H., Pontekorvo, B.,

Sulyayev, R. M., Filippov, A. I., Tsupko-Sitnikov, V. M.,

Shcherbakov, Yu. A.

TITLE:

AUTHORS:

Observation of the reaction μ^- + ${\rm He}^3 {\longrightarrow} {\rm H}^3$ + ν

PEFIODICAL: Zhurnal eksperimental noy i teoreticheskoy fiziki, v. 41,

no. 6(12), 1961, 1804-1808

TENT: The probability of slow μ -meson capture by He^3 is known from highly accurate theoretical calculations. From probability measurements of the

reaction μ^{-} + He³ \rightarrow H³+ ν the muon-nucleon interaction constant can be determined and the results compared with those of the weak interaction theory. From the tritium energy in this process the upper limit of the neutral particle mass emitted in muon capture can be estimated and the probability of the process μ +p $\to n+\nu$, not yet observed with certainty, can be determined. The first results of investigation of muon capture by He are dealt with. A diffusion chamber filled with pure (99.999%) He at Card 1/4

31775 S/056/61/041/)6/021/054 B102/B138

Observation of the reaction ...

Card 2/4

20 atm, was placed in a field of 6000 oe and exposed to a muon beam (momentum 217 Mev/c) from the synchrocyclotron of the OIYaI. The methyl alcohol pressure in the sensitive layer of the chamber was less than 50 mm Hg, the tritium content of the gas used was 10⁻¹⁵. A copper filter was put in the chamber to slow down the mesons and eliminate the pions. The chamber was carefully shielded from thermal neutrons. To date, about 6000 photographs have been taken of events where the muon path stopped at a He nucleus. The reactions sought were identified by the energy of the tritium nucleus. From the pion admixture 1200 stars were observed. The admixture was determined to ~2/3, causing \(\pi + \text{He}^2 \rightarrow \text{H}^2 + \text{V} \) reactions. 14 events of the \(\pi \) \(\pi \) reaction were identified, the mean tritium range was \(\pi \) \(\pi \) reaction were identified, the mean tritium range was \(\pi \) \(\pi \) reaction were identified, the mean tritium range was \(\pi \) \(\pi \) reaction were identified, the mean tritium range was \(\pi \) \(\pi \) \(\pi \) reaction were identified, the mean tritium range was \(\pi \) \(\pi \) reaction were identified, the mean tritium range was \(\pi \) \(\pi \) reaction were identified, the mean tritium range was \(\pi \) \(\pi \) reaction were identified, the mean tritium range was \(\pi \) reaction and the range of the reaction of the reaction (1) was \(\pi \) \(\pi \) \(\pi \) reaction \(\pi \) reaction (1) was \(\pi \) \(\pi \) \(\pi \) reaction \(\pi \) reaction (1) was \(\pi \) \(\pi \) \(\pi \) reaction (1) was \(\pi \) \(\pi \) \(\pi \) reaction (1) was \(\pi \) \(\pi \) reaction (2) \(\pi \) reaction (3) \(\pi \) reaction (4) \(\pi \) reaction (5) \(\pi \) reaction (6) \(\pi \) reaction (7) \(\pi \) reaction (8) \(\pi \) reaction (1) was \(\pi \) \(\pi \) reaction (1) \(\pi \)

31775 S/056/61/041/006/021/054 B102/B138

Observation of the reaction ...

weak interaction was $(1.54\pm0.08)\cdot10^3 \text{sec}^{-1}$. The constant of vectorial μN interaction was estimated roughly: With a probability of 90%,

Kuznetsov and A. I. Filimonov for the purification of the He³ from H³ carried out in the IFF AN SSSR, S. S. Gershteyn for discussions, V. P. Dzhelepov, L. I. Lapidus for interest and G. M. Aleksandrov, V. V. Kuznetsov, N. V. Lebedev, V. I. Orskhov, V. F. Poyenko, A. G. Potekhin, D. B. Fontekorvo and I. V. Falomkin for experimental help. There are 2 figures and 12 references: 4 Soviet and 8 non-Soviet. The four most recent references to English-language publications read as follows: S. Weinberg. Phys. Rev. Lett. 4, 575, 1960; J. C. Fetkovich et al. Phys. Rev. 118, 319, 1960; E. J. Maier et al. Phys. Rev. Lett. 6, 417, 1961; L. Wolfenstein. Proc. of the 1960 Ann. Int. Conf. on High Energy Phys. of Rochester, Univ. of Rochester, 1960, p. 529; Bull. Amer. Phys. Soc., 6, 33, 1961.

Card 3/4

31775 S/056/61/041/006/021/054 B102/B138

Observation of the reaction ...

ASSOCIATION:

Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBLITTED:

July 25, 1961

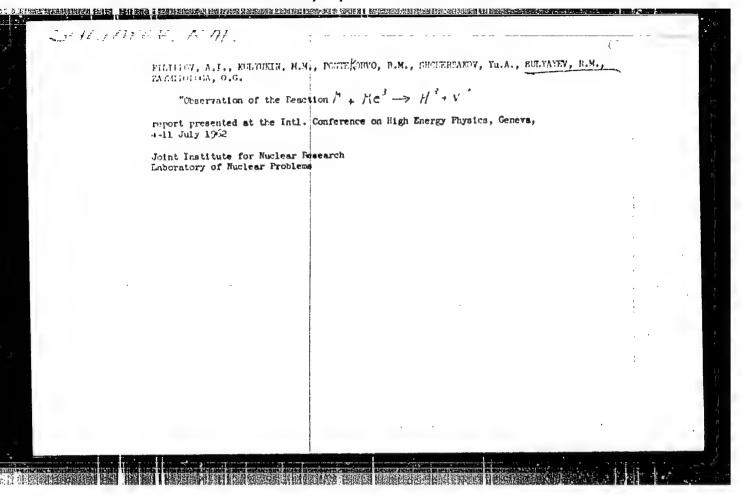
Ca.rd 4/4

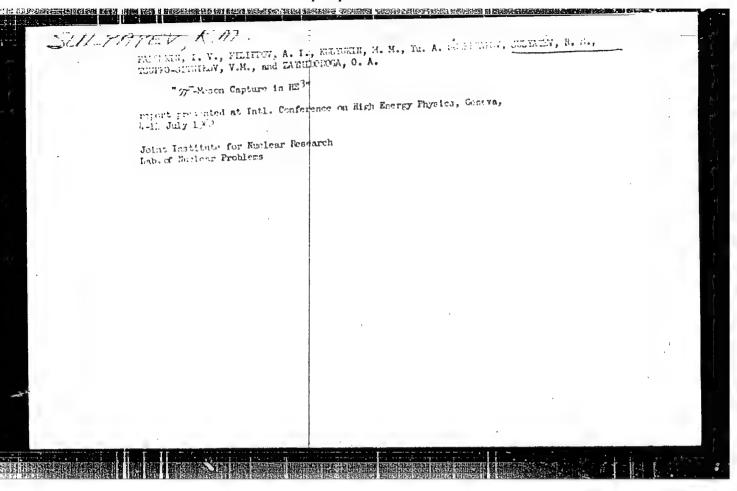
FALCHER, I.V., FILIPOW, A.I., MEMBRIS, H.M., INTELENCY, D.M., CHEEDANY, Yu.A., ELLIVARY, R.M., THEFO-SIRHEN, V.M., ZAHEL TOWN, D.M., CHEEDANY, Yu.A., Therm-Sweleon interaction Constants and Muon Capture in EZ 7"

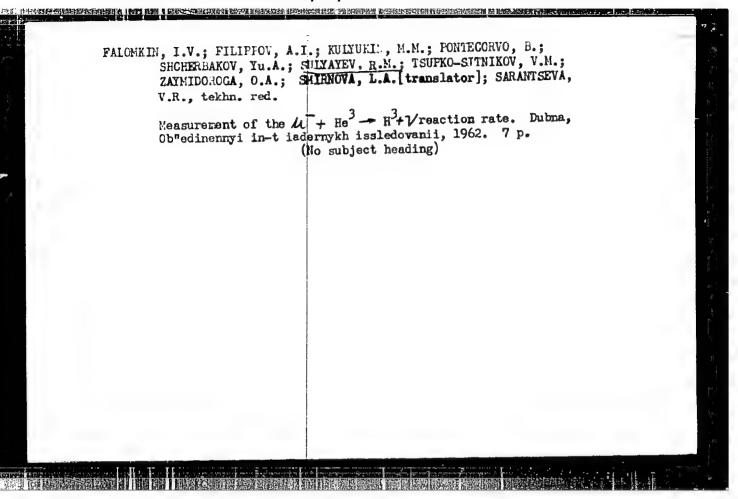
report presented at the Intl. Conference on High Energy Physics, Canava, L-11 July 1952

Joint Institute for Nuclear Problems

Joint Institute for Nuclear Problems







39680 \$/056/62/043/001/055/056 B102/B104 24,6700 Zaymidoroga, O. A., Kulyukin, M. M., Pontekorvo, B., Sulyayev, R. M., Falomkin, I. V., Filippov, A. I., NOTEONS: Tsupko-Sitnikov, V. M., Shcherbakov, Yu. A. Measurement of the probability of the $\mu^-\!\!+\!\! He^3\!\!\to\! H^3\!\!+\!\! \nu$ reaction Zhurnal eksperimental noy i teoreticheskoy fiziki, v. 43, Taliai: : 4..10DIC.L: no. 1(7), 1962, 355-358 TEXT: The $\mu^- + \text{He}^3 \rightarrow \text{H}^3 + \nu$ -reaction probability was measured in order to study the symmetry of the muon and electron interactions with nucleons. The method used is that described in ZhETF, 41, 1805, 1961. A diffusion chamber filled with He gas (20 atm) in a field of 6 kee was exposed to a muon beam (217 Mev/c) from the synchrocyclotron of the Laboratoriya yadernykh problem OlYal (Laboratory of Nuclear Problems of the OlYal), a copper filter being used to moderate the muons. Some 105 photographs were taken. The total number of captures and µ-e decay events was determined from the spectrum of the visible secondary tracks of tritium stars and also from the spectrum of the ranges of the stopped secondary Gard 1/3

\$/056/62/043/001/055/056 B102/B104 Measurement of the probability of the ... particles. The two spectra agree, each having two peaks: a higher peak at ranges of 2.0 - 2.6 mg/cm² corresponding to the reaction μ^{-} +He³ \rightarrow H³+ ν , and a smaller one at 5.3-5.9 mg/cm² corresponding to $\pi^- + \text{He}^3 \rightarrow \text{He}^3 + / -$. The probability of the muon capture was found to be $(\Lambda_{\rm He}^3)_{\rm exp} = (1.36\pm0.18)\cdot10^3 {\rm sec}^{-1}$, as against which Wolfenstein (Bull. Am. Phys. Soc. 6, 33, 1961) had calculated $(\Lambda_{He}^3)_{theor.} = 1.54 \cdot 10^3 sec^{-1}$. using the theory of universal vectorial interaction. The result speaks in favor of this theory, and the muon - electron symmetry in nucleon interactions on which the universal theory is based agrees with the experiment (13% accuracy). An estimate of the Fermi and Gamow-Teller constants (G_{p} and G_{G}) of this reaction results in G_{p} <- 0.1, $a_{\rm F} = -(0.8^{+0.4}_{-0.7}) G_{\rm G}$ which is in agreement with the theory of universal V-A interaction. There are 2 figures. Card 2/3

Measurement o	f the probability of the	S/056/62/043/001/055/056 B102/B104	· · · · · · · · · · · · · · · · · · ·
ASSOCIATION:		yadernykh issledovaniy	
SUDMITTED:	May 30, 1962		I
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Card 3/3			

3/056/63/044/001/067/067 B102/B186\

AUTHORS:

Zaymidoroga, O. A., Kulyukin, M. M., Pontekorvo, B., Sulyayev, R. M., Falomkin, I. V., Filippov, A. I.,

Tsupko-Sitnikov, V. M., Shoherbakov, Yu. A.

TITLE:

Measurement of the μ^- +He³- π 3 +v reaction probability.

Final results

PERIODICAL:

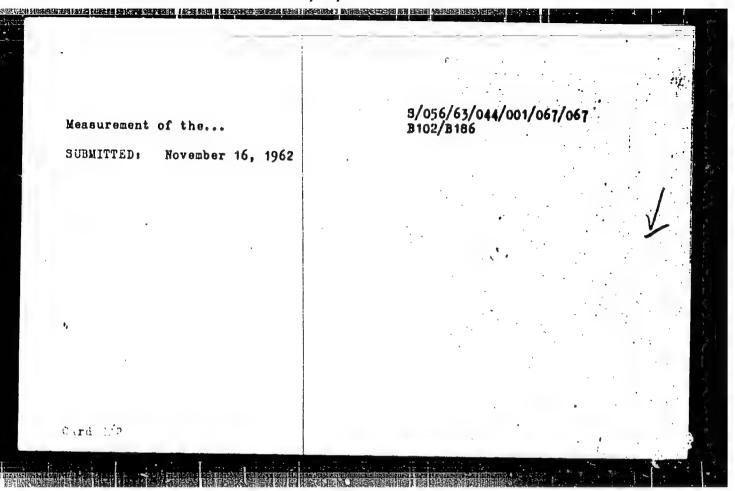
Zhurnal eksperimental noy i teoreticheskoy fisiki, v. 44,

no. 1, 1963, 389 + 390

observed in a He³ diffusion chamber. Experimental method, and the scanning and evaluation, procedures used were the same as those described in ZhETF, 43, 355, 1962. The final experimental result is

 $\Lambda_{\rm He3} = (1.41 \pm 0.14) \cdot 10^3 \, {\rm sec}^{-1}$. It agrees with the previously published one which was calculated from the data of 90 events. There is 1 table.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)



SULYAYEV, R.M.

5/056/63/044/004/011/044 B102/B186

AUTHORS:

Zaymidoroga, O. A., Kulyukin, N. H., Sulyayev, R. M., Falomkin, I. V., Filippov, A. I., Tsupko-Sitnikov, V. M.,

Shcherbakov, Yu. A.

TITLE:

The Panofsky ratio for He 3 and the root-mean-square radius

for the He 3-H3 transition

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,

no. 4, 1963, 1180 - 1183

TEXT: The capture of * by He was theoretically investigated, and was effected in the following processes which are allowed from the standpoint of conservation laws:

> $\pi^- + \text{He}^* \rightarrow \rho + n + n$ (55,5%)

 $\pi^- + \text{He}^4 \rightarrow n + d$ (27.8%)

III. $\pi^- + He^4 \rightarrow H^3 + \pi^9$ (9,4%)

IV. $\pi^- + He^4 \rightarrow H^2 + \gamma$ (4.8%)

 $\pi^- + \text{He}^{\dagger} \rightarrow d + n + \gamma$ (2.0%)VI. $\pi^- + \text{He}^* \rightarrow p + n + n + \gamma$ (0,5%)

Card 1/3

The Panofsky ratio for ...

S/056/63/044/004/011/044 B102/B186

Now the capture of m mesons stopped in He³ could be observed for the first time in the reactions III and IV. B. V. Struminskiy has shown (Preprint OIYaI, E-1012, Dubna, 1962), that the probability ratio (Panofsky ratio P) of these reactions is related with the r.m.s. radius r of the He³-H³ transition in radiative processes by

$$P = \frac{P_{\rm H}}{1 - \frac{1}{3} h^2 r^2 + \frac{1}{10} h^2 r^2} \frac{\omega + M}{\omega_{\rm H} + m} \frac{\omega_{\rm H}}{\omega} \left[\frac{E}{E_{\rm H}} \frac{M}{m} \left(\frac{\mu + m}{\mu + M} \right)^2 \right]^{1/2}, \tag{1}$$

k is the wave number of the photon in IV, ω the photon energy in IV, m the neutron mass, ω the π^0 mass, M the tritium mass, E the energy released in III; the quantities with the subscript H refer to π^- +p processes. The experiments were made with a He³-filled diffusion chamber (20 atm) placed in a magnetic field of 6 koe. Among the 2372 photographs of pion stops in He³ the processes III and IV were singled out according to the ranges of the particles involved. The relative probabilities of III and IV were $W_3 = (13.5 \pm 0.9)\%$ and $W_4 = (6.2 \pm 0.7)\%$. The Panofsky ratio was obtained as: $P = 2.16 \pm 0.28$, and from this r could be calculated: $r = (1.24 \pm 0.30) \cdot 10^{-13}$ cm, which is in close agreement with the value calculated by C. Werntz (Nucl. Card 2/3)

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653910017-8

The Panofsky ratio for ...

\$/056/63/044/004/011/044 B102/B186

Phys. 16, 59, 1960). The yields of III and IV were found to be somewhat higher than those predicted by Messiah (Phys. Rev. 87, 639, 1952). There are 2 figures.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute

SUBMITTED: November 16, 1962

Card 3/3

ZAYMIDOROGA, O.A.; KULYUKIN, M.M. PONTEKOFVO, B.; SULYAYEV, R.M.;
FALOMKIN, I.V.; FILIPPOV, A.I.; TSUPKO_SITNIKOV, V.M.;
SHCHERBAKOV, Yu.A.

Measurement of the total probability of muon capture in He³.
Zhur. eksp. i teor. fiz. 45 no.6:1803-1807 D'63. (MIRA 17:2)

1. Ob"yedinennyy institut yadernykh issledovaniy.

 L 14307-63

EWP(q)/EVT(m)/BDS AFFTC/ASD JD/JG

ACCESSION NR: AP3003110

s/0056/63/044/006/1852/1858

AUTHOR: Zaymidoroga, O. A.; Kulyukin, M. M.; Sulyayev, R. M.; Filippov, A. I.; Tsupko-Sitnikov, V. M.; Shcherbakov, Yu. A.

TITLE: Formation of helium mesic atoms in a hydrogen-helium gas mixture

SOURCE: Zhurnal eksper. i teor. fiziki, v. 44, no. 6, 1963, 1852-1858

TOPIC TAKS: helium mesic atom formation, helium, hydrogen, direct attachment, muon transfer

ABSTRACT: The formation of helium mesic atoms in a mixture of helium and hydrogen was studied in a diffusion cloud chember at 19 atmospheres pressure. The experiment was performed to clarify the roles of the two possible mechanisms of helium mesic atom formation in a H-He mixture, direct attachment or via muon transfer, and as a check on an experimental procedure which permits the use of relatively small amounts of helium. The diffusion chember was exposed to a beem of negative mesons with initial momentum 170 MeV/c from the synchrocyclotron of OIYal. Both He sup 3 and He sup 4 were used, with nuclear concentrations 14.3 and 4.9 %, respectively. The probability of the capture of muons by helium from a hydrogen mesic atom in the ground state was found to be at least three orders of magnitude smaller than the probability of capture by carbon or oxygen nuclei, Cord 1/2

L 14307-63 ACCESSION NR: AP300	3110	The state of the s	· · /
	ly exceed 1 million per se	and in agreement withth	oretical
estimates made by S.	S. Gershteyn (2hETF v. 43	, 706, 1962). Agreement	rith the
Fermi-Teller "Z-law"	was indicated for direct ne authors are deeply inde	attachment of mesons to no bted to S. S. Gershteyn.	iclei in
P. F. Vermolay, and	R. Pontecorvo for numerous	valuable amor sions, an	l to
A. I. Tokarakaya and	Ye. A. Shysneva for essis, 10 formules, and 4 table	tance Artu Ct & measuremen	3. W18.
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ASSOCIATION: Ob"yed: Nuclear Research) SUBMITTED: 23Jan63	inenny*y institut yederny* DATE ACQ: 23Jul63	kh issledovaniy (Joint In	stitute of
ASSOCIATION: Ob"yed: Nuclear Research) SUBMITTED: 23Jan63	inenny*y institut yederny* DATE ACQ: 23Jul63	kh issledovaniy (Joint In	stitute of
ASSOCIATION: Ob"yed: Nuclear Research) SUBMITTED: 23Jan63	inenny*y institut yederny* DATE ACQ: 23Jul63	kh issledovaniy (Joint In	stitute of

ACCESSION NR: AP4018367

5/0120/64/000/001/0069/0075

AUTHOR: Aleksandrov, G. M.; Zaymidoroga, O. A.; Kulyukin, M. M.; Peshkov, V. P.; Sulyayev, R. M.; Filippov, A. I.; Tsupko-Sitnikov, V. M.; Shcherbakov, Yu. A.

TITLE: Use of helium-3 for filling a high-pressure diffusion chamber

SOURCE: Pribory* i tekhnika eksperimenta, no. 1, 1964, 69-75

TOPIC TAGS: diffusion chamber, helium-3 tritium separation, high pressure diffusion chamber, synchrocyclotron, OIYaI synchrocyclotron, high purity helium-3

ABSTRACT: A method of highly purifying helium-3 from tritium (II3/Ile3 < 10-14) is described. Helium-3 condensation with subsequent evaporation at 1.2 K was used. The cycle was repeated 4 times; a small amount of H, (about 0.005%) was added prior to every liquefaction. The source gas contained 0.1% of H and 0.5-1% of H, D, N, O, and A. The final elimination of H, was attained by burning it with copper oxide heated to 500C. The internal parts of the DK-2 standard diffusion chamber (see M. S. Kozodayev, et al., PTE, 1958, no. 6, p. 47) were remodeled; its volume, about 11 lit., was filled with helium-3 up to 20 atm; equipment and

Card 1/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653910017-8"

ACCESSION NR: AP4018367

filling details are given. The chamber was in continuous (500 hrs) operation with the OIYaI synchrocyclotron. It can be filled within 5 hrs. Gas loss at each exposure has been 0.1% or less. "The authors are deeply grateful to P. L. Kapitsa for his permission to separate He³ from T in IFP AN SSSR, and to V. M. Kuznetsov and A. I. Filimonov for lending the equipment and their help in determining T concentrations. We are also thankful to V. P. Dzhelepov and L. I. Lapidus for their interest in the project, and to K. A. Baycher and S. F. Maly*sheva for their help in building the cutfit. Mounting was performed by A. G. Zhukov, P. Ye. Laykov, N. V. Lebedev, V. I. Orekhov, V. F. Poyenko, A. G. Potekhin, and A. I. Chernetskiy, for which we thank them. We would particularly like to acknowledge the discussions as well as the active help of B. Pontecorvo throughout the project stages." Orig. art. has: 4 figures.

ASSOCIATION: Ob"yedinenny*y institut yaderny*kh issledovaniy (Joint Institute of Nuclear Studies)

SUBMITTED: 23Feb63

DATE ACQ: 18Mar64

ENCL: 00

SUB CODE: NS

NO REF SOV: 006

OTHER: 005

Card 2/2

UR/0056/65/048/005/1267/1278 ACCESSION NR: APSOL3885 Laymidoroga, C. A.; Kulyukin, M. M.; Sulyayev, R. M.; Falomkin, I. V.; tury of it a sapture by HeB. 1. Charge exchange and radiative capture. with inurnal designmental by i teoreticheskoy firiki, v. 48. no. 5, 1965, Sometime, Selfum, charge exchange, radiative capture, Panofsky make the second of the state of ARSTRACT: This is a continuation of an earlier paper by the authors (ZhETF v. 44, 11% . 1% V . A high-pressure diffusion thamber operating in a magnetic field was The source of the second of the proteculties of opence exphange and radiative 1373 The first thamber was inscribed The entherty of the anastroments e sajerime tal called brat ed for the Panofsky ratio the second transfer of main . This we wigh Energy objects at ONEW p. 17), is used to Card 1/2

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653910017-8

L 58447-65 AP5013885 ACCESSION NRI determine the nuclear form factor and the mean square nuclear radius corresponding to the distributions of the centers of the nucleons. The value of the Panofsky ratio is 2.20 t 0.18, that of the nuclear form factor is F2 = 0.75 t 0.06 (for a mentum transfer 45 = 0.47 F5), and the relative probabilities of charge exchange and ration the carture are found to be $W(H^3y^0) = (15.8 \pm 0.8)\%$ and $W(H^3y) = (6.9 \pm 0.9)\%$ · C SIL. The authors thank b. Pontecorro and B. Y. Struminskiy for a discussion of the results, and A. G. Zhukov, H. V. Labedev, V. I. Orekhov, V. F. Poyenko, A. I. Potentin. A. I. Pokarskaya and Ye. A. Shvaneva for assistance with the measure-Originate Toriginate has: 5 figures, 10 formulas, and 5 tables. ASSOCTATION: Ob"edinenayy institut yadernykh issledovaniy (Joint Institute of Ruclear Research) SUB CODE: ENCL: SUBSTITIED: 30Dec64 004 OTHER: NR REF SOV: 003 121

L 64752-65 EaT(m)/T/EdA(m)-2	!	
ACCECTON NO. AMERICA		
ACCESSION NR: AP5016551 UR/0056/65/048/006/1594/1597		- P.
** **		
AUTHORS: Zaymidorova, O.A., Struminskiy, B.V., Sulyayev, R.M., Falomkin, I.V.: Tsupko-Sitnikov, V. Sulyayev, R.M.,	i	200
Falomkin, I.V.; Tsupko-Sitnikov, V.M.; Shcherbakov, V.M.;		
Falomkin, I.V.; Tsupko-Sitnikov, V.M.; Shcherbakov, Yu.A.		
TITLE: Nuclear form factors in muon capture by He-3	1	
SOURCE: Zhurnal eksperimental noy i teoreticheskoy fiziki, v. 48,	1 5	
no. 6, 1965, 1594-1597	7	
		. 1
TOPIC TAGS: muon, helium, capture cross section		112
ABSTRACT: The authors obtained improved values of the nuclear matrix		
element for the reaction $\mu + He^3 \rightarrow H^3 + v$ from the experimental		
Catchione for the reaction of the track and the catchion of th		
scattering of electrons by He and H . The calculations are based		. "
on the expression with him to The calculations are based		
on the expression given by Fujii and Primakoff for the matrix ele-		18. ·
Lents (Nuovo Cimento v. 12, 327, 1959). The partial probability for		
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ACCESSION NR: AP5016551

the capture of muons by He, calculated on the basis of the universal weak interaction theory with the values of the form factors obtained, is found to be 1515 \pm 55 sec 1. This agrees well with the value (2h2TF v. 44, 389, 1963). The ratios of the pseudoscalar constants are calculated to be $\psi_A^{\ \beta}/g_V^{\ \beta} = -1.160$ and $g_p^{\ \beta}/g_A^{\ \mu} = 7$. From a comparison of the calculated probability with the experimental results the authors estimate the pseudoscalar constant to be $j_p^{\ \beta} = (8 \pm 3)g_A^{\ \mu}$. The authors thank S. M. Bilen kiy, S. S. Gershteyn, and B. Pontestronals in the sum of the calculated probability with the sum of the second section of the calculated probability with the experimental results the authors thank S. M. Bilen kiy, S. S. Gershteyn, and B. Pontestronals in the second section of the calculation of the c

ACCESSION NR: AP5016551

SUBMITTED: 22Jan65 ENCL: 00 SUB CODE: NP

NR REF SOV: 003 OTHER: 011

L 18035-63

EPR/EPA(b)/EWT(1)/BDS AFFIC/ASD

SD Ps-4/Pd-4 WW

ACCESSION NR: AP3000724

\$/0258/63/003/002/0373/0375

64

AUTHORS: Zhurir, V. V. (Moscow); Sulyayev, V. A. (Moscow); Bukovskiy, V. M. (Moscow)

TITLE: Shock waves in electromagnetic shock tube

SOURCE: Inzhenerny'y zhurnal, v. 3, no. 2, 1963, 373-375

TOPIC TAGS: shock wave, ionization, plasma, magnetic dipole, shock tube, discharge, condenser

ABSTRACT: The technique of obtaining strong shocks at high ionization levels in electromagnetic shock tubes was studied. The discharge was obtained from a bank of capacitors (18 microfarad capacity) discharging at 20-kv. Quartz tubes 1000 mm in length and with internal diameters of 11 and 40 mm acted as shock tubes. The gases used were helium and hydrogen, with an initial pressure between 0.05-5 mm Hg. Oscilloscopes and high-speed movie cameras were used to record data. In the experiment pressures up to 2000 atm. were obtained with shock speeds of 8 x 107 cm/sec. The electron gas temperature behind the shock was estimated at 700 ev. Unlike the observation by F. R. Scott and R. F. Wenzel (Phys. Fluids. vol. 2, No. 6, 1959) no magnetic dipole was observed in the ionized gas. However, as

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CIA-RDP86-00513R001653910017-8

L 18035-63

ACCESSION NR: AP3000724

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previous investigators have observed, electron diffusion could be detected ahead of the shock wave. "The author is grateful to A. A. Nikol'skiy for his interest in this investigation and to N. V. Filippov, S. R. Kholev, and A. I. Lashkov for his valuable discussions on the experimental results." Orig. art. has: 1 illustration.

ASSOCIATION: Institut mekhanik AN SSSR (Institute of Mechanics, AN SSSR)

SUBMITTED: 12Sep62

DATE ACQ: 21Jun53

ENCL: 00

SUB CODE: PH

NO REF SOV: 001

OTHER: 002

Card 2/2

ZHURIN, V.V. (Mockva); SULYAYEV, V.A. (Mockva)

Investigating the structure of strong shock waves in hydrogen and helium. Inzh.zhur. 3 nc.4:645-657 '63. (MIRA 16:12)

1. Institut mekhaniki AN SSSR.

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653910017-8

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L 54506-65 ENT(1)/EMP(m)/EMA(d)/EPR/FCS(k)/EMA(h)/EMA(c) Fd-1/P1-4 % S/0258/63/003/004/C	W 06L5/0657 23	elle T
A. H.RS: Zhurin, V. V. (Moscow); Sulvayev, V. A. (Moscow)	17	
	Ŀ	
300202: Inzumrernyey zhurnal, v. 3, no. 4, 1963, 645-657		
I FIG IAGU: Shock wave, shock wave in helium, shock wave in hydrogen, electrons shows tube, plasma dinables, plasma flow, gas ionization, ion proceedings, plasma flow, gas ionization, ion proceedings, plasma flow, gas ionization, shock wave.	-p	
ture		-

L 51,606-65 ACCESSION NR: APLOOLLO2 ers. The integral spectrum of the wave was photographed on a spectrograph. To measure the electron temperature from the gas conductivity, a magnetic coil was most was used to determine the magnetic field change. After the discharge plasma has pinched it travels down the quartz ture, displacing the magnetic field, but (since it has a finite corductivity) the magnetic field diffuses back in. For small regnetic fields the kinutic pressure of the gas is higher than the magnetic Title pressure, and the latter does not change. But as the magnetic field is . Teacher to plasma is compressed, this changing the magnetic field. This was so to measure the plasma pressure about the book save. The velocity of the to the ... Whiteger was measured as a 1 word . Little pressure for several . .t.a. viltages with the following costills at 1 -20 MV the maximum occurs at 1 Thing. At L, and 15 the velocity turns to follow the law $U\approx$ const. (2/0) 1/2, the maintred plasma temperature (related to the honductivity by the Spitzer Agreed to general with the two to anyonatine years Mach number tring the radiation from required for first and second stage of apack downloams, for hydrogen were somewhat higher than those predicted from the authors thank A. A. Mikol'skiy for guiding the work, No. 1. F 1. P. O. N. A. Anoley, and A. I. Leshkov Card 2/5 .

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for their advice and Yu.	?. Orlow for helping with the formulas.	the experiments. Orig. art.	·
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SULVE, 2.P.

ET-754 On the problem of creating perennial forms of wheat X voprosu o sozdania enogoletnikh form pahenitay.

Fruity Zengl'no to Institute Zernevore Ehoziaista Mechannogennei Polosy SSSR, (2): 32-42, 1745. (Translation does not include illustrations).

SERGEYEV, G.V.; SUL'IE, Ye.V.

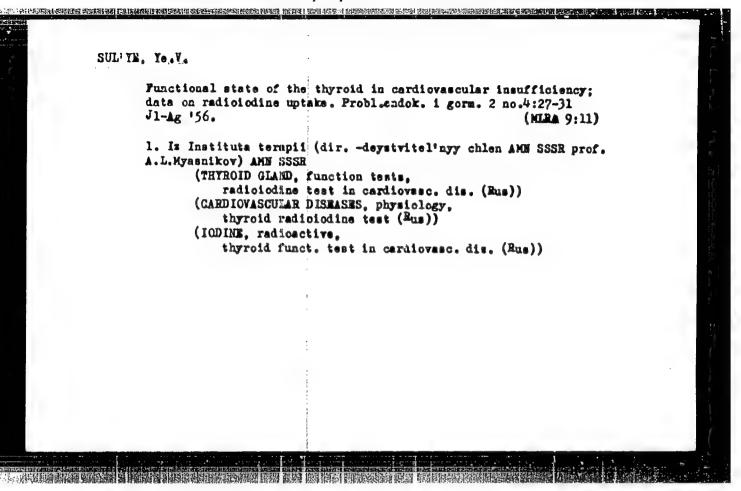
Segmental-refler paraffin therapy of peptic ulcer. Klin.med.,
Noskva 29 no.4:63-65 Apr 1951. (CIML 20:9)

1. Of the Institute of Therapy (Director--Prof. A.L. Myasnikov,
Active Member of the Academy of Medical Sciences USSR) of the
Academy of Medical Sciences USSR.

FOTEYEVA, M.E.; SUL'YE, Ye.v.; TOLOMEOVA, Ye.A.; HESTEROVA, A.P.; MATSNIKOV, A.L., professor, departifully ohlen Akademii meditsinskikh nauk SSSR, direktor.

Rate of blood flow in hypertension determined with radioactive sodium.
Tersp.arkh. 25 no.3:7-14 My-Je '53. (MLMA 6:9)

1. Institut terspii Akademii meditsinskikh nauk SSSR. (Rypertension) (Radioactive tracers)



SUL'YE-KOSTYUSEKO, Ye. V. Cand Med Sci -- (diss) "Functional condition of the thyroid gland in cases of cardiovascular insufficiency. (According to data on the absorption of radiocative iodine)" Mos, 1957. 12 pp 20 cm. (Acad Med Sci USSR), 100 copies (KL, 7-57, 110)

80

SPERANSKIY, I.I., prof.; SUL'TE, Ye.V.; BITKOVA, S.I.

Hereditary familial data on patients with hypertension. Terap.arkh.
31 no.9:7-12 S '99.

1. Iz Instituta terapii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR (for Speranskiy).

(HYPERTENSION genetics)

The IR-1 energy resolution meter. Prib. 1 tekh. eksp. 9
no.2:76-78 Mr-Ap'6A.

(MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov.

Q

USSR / Farm Animals. Cattle

Abs Jour: Ref Zhur-Biol,, No 5, 1958, 21460

Author : Sulyma Ya. F.

Inst Title

: The Growth and Davelopment of Lambs of the Romney
Breed, Those of the Coarse-Wool Long-Lean-Tailed Type,
and Their Crosses (Rost i razvitiye yagnyat porody
romin-marsh, grubosherstnykh dlinno-toshchekhvostykh

i ikh pomesey)

Orig Pub: Tr. Mosk. vet. akad., 1957, 19, No 1, 174-187

Abstract: The results of the study of the growth and development of lambs of the aforesaid breeds, from the morth of birth up to the age of 1-1/2 years, raised under regular conditions of feeding and management (Ryazan Oblast), are reported. The minimal live weight at birth was found in lambs of the coarse-wool type

Card 1/2

18

USSR / Farm Animals. Cattle

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Abs Jour: R f Zhur-Biol., No 5, 1958, 21460

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Abstract: (3.0-3.2 kg.); the crossbred lambs and the Romneys had almost the same weight (4.0-4.6 and 4.14-4.68 kg.). When the feeding is deficient, as the case may be in the suckling, fall-pasturing, and winter-stabling periods, the highest daily weight increase and rate of growth is shown by the coarse-wool lambs. Under good feeding conditions, during the summer pasturing season, the hybrid lambs considerably surpass the coarse-wool ones in live weight, average weight increase and rate of growth, and are about the same as the Romneys in this respect. By providing necessary conditions of feeding and management, it is possible to accelerate the maturity of the crossbred lambs.

Card 2/2

SULYMAN, G.S

SUBJECT

USSR / PHYSICS

CARD 1 / 2

PA - 1712

AUTHOR TITLE SULJMAN, G.S.

Disturbances of Radio Reception caused by Gasotrons of the

Rectifier.

PERIODICAL

Radiotechnika, 11, fasc. 11, 60-61 (1956)

Issued: 12 / 1956

During operation of a ship's wireless transmitter on medium waves disturbances caused by transmitters in the neighborhood have often been noticed. Similar conditions were created and the matter was investigated. When the gasotrons were replaced by selenium rectifiers, the disturbances vanished. Endeavors were then made to find methods by means of which the disturbances as such could be eliminated. Eventually, the same means that were employed in the case of disturbances caused by electric machines were applied. As a result the disturbing noise vanished completely within a range of from 550 to 750 kc, after which it remained insignificant at 250 and 1000 kc.

From the entire investigation the following conclusions can be drawn:

- 1.) The highfrequency part of the medium-wave transmitter is in no relation to the production of radio disturbances.
- 2.) The cause of radio disturbances in a receiver which is tuned to medium waves is the gasotron rectifier of the transmitter.

SULYCK, D.; SZASZ, G.

Experiments with bone marrow transplantation. Orv. hetil. 92 no.17:529-531 29 Apr 1951. (CIML 24:5)

1. Doctors. 2. Internal Department (Head Physician -- Dr. Gyorgy Smass) and Laboratory (Head Physician -- Dr. Denes Sulyok), Fejer County General Hospital (Director -- Dr. Elek Benedek).

SULYOK, DENES D. S.

SZASZ, Gyorgy, dr.; SULYOK, Denes, dr.; KERKOVITS, Gyula, dr.

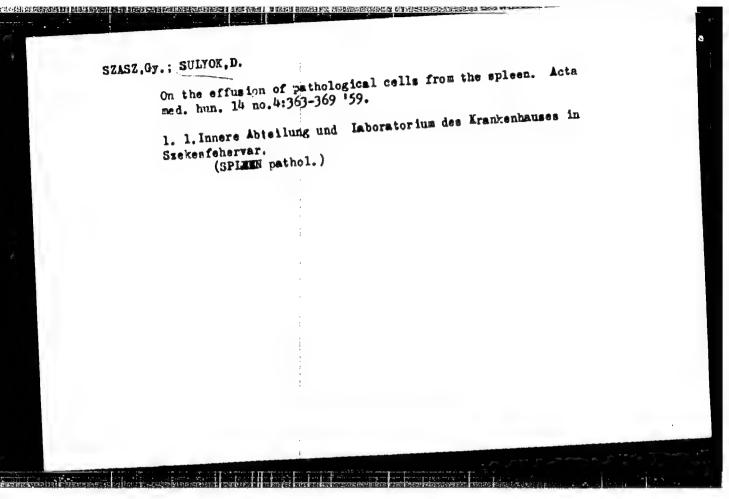
i le of the central nervous system in the regulation of reticuloendothelial function. Orv hetil 95 no.21:568-570 ky 154.

(KEAL 3:8)

1. A Fejermegyei Tanacs Korhana (igangato: Benedek Elek dr.)
Laboratoriumanak (foorvos: Sulyok Denes dr.) es Belgyogyassati
Osztalyanak (foorvos: Snass Gyorgy dr.) konlemenye

(CKETTALL HERVOUS SYSTEM, physiology
*regulation of HB funct.)

(RETICULOENDOTHELIAL SYSTEM, physiology
*central nerv. regulation)



SULYOK, Jozuef, okloveles gepesamernok

Tropicalization activity of the Pesearch Institute of Electric Industry. Elektrotechnika 57 no.11/12:504-508 N=f 164.

1. Head, Climatication Division, Research Institute of Electric Industry, Budapest, XIII., Lehel ut 23.

A SULYOF

H/021/63/000/001/001/001 D295/D507

AUTHORS:

Sulvok, N.S., Czeizel, E., Gyuru, G. and Vaczó,

"Soctor's

TITLE:

Investigation of the protective effect of cystamine

PERIODICAL:

Magyar Radiologia, 5no. 1, 1963, 49-51

The authors exposed 20 white mice each weighing 17-25 g, to total body radiation in a dose of 650 r (180 kV, 15 mA, 0.5 mm Cu filter, distance 40 cm, dose rate 67.6 r/min). 10 mice were given 0.15 mg/g 'Lambratene' (a preparation of cystamine or were given 0.15 mg/g 'Lambratene' (a preparation of cystamine or \$\beta\$ -mercaptoethylamine, produced by \$\beta\$ racco Industria Chimica S.p.A., \$\beta\$ in the substitute of \$\beta\$ is a control \$\beta\$ in the substitute of \$\beta\$ is a substitute of \$\beta\$ in the substitute of \$\beta\$ is a control \$\beta\$ in the substitute of \$\beta\$ is a substitute of \$\beta\$ in the substitute of \$\beta\$ is a substitute of \$\beta\$ in the substitute of \$\beta\$ is a substitute of \$\beta\$ in the substitute of \$\beta\$ is a substitute of \$\beta\$ in the substitute of \$\beta\$ is a substitute of \$\beta\$ in the substitute of \$\beta\$ is a substitute of \$\beta\$ in the substitute of \$\beta\$ is a substitute of \$\beta\$ in the substitute of \$\beta\$ is a substitute of \$\beta\$ in the substitute of \$\beta\$ is a substitute of \$\beta\$ in the substitute of \$\beta\$ is a substitute of \$\beta\$ in the substitute of \$\beta\$ in the substitute of \$\beta\$ is a substitute of \$\beta\$ in the substitute of \$\beta\$ is a substitute of \$\beta\$ in the substitute of \$\beta\$ is a substitute of \$\beta\$ in the substitute of \$\beta\$ in the substitute of \$\beta\$ is a substitute of \$\beta\$ in the substitute of \$\beta\$ is a substitute of \$\beta\$ in the substitute of \$\beta\$ in th Milan) 5 minutes before exposure, and 10 others served as a control. Seven days after exposure only 4 of the control mice and 9 of the mice treated with Lambratene were alive. After 12 days all control mice had perished but 9 mice of the treated group were still alive, demonstrating the protective effect of cystamine. To show whether Lambratene protected the Jone marrow function against radiation the authors used Kertai's starch test (Kisérl. Orvostud, v. 10, 15 (1958));

Card 1/3

H/021/63/000/001/001/001 D296/D307

Investigation of the ...

CALLANDED BELLEVIEW BILL BOARD AND THE PROPERTY OF THE PROPERT

injection of 5 ml/kg of a 5% aqueous starch solution causes a marked granulocytosis in normal rabbits, but exposure to 400 r suppresses this bone marrow response. Experiments on 19 rabbits revealed no difference between irradiated rabbits treated and not treated with Lambratene. The bone marrow response after injection of starch was absent in both groups, i.e. Lambratene failed to protect the bone marrow against the damaging effect of radiation. In the third group of experiments the authors carried out partial exstirpation of the liver in 79 rats from the same breeding station of the National Institute of Public Health and assessed the regeneration of liver tissue, by the formula of Canzanelli (Canzanelli et al., Endocrinology, v. 91, 45, 1949). In 27 non-irradiated rats the liver regenera-tion index was 86.4%. In 17 rats exposed to 500 r this index fell to 59.6%. In 9 irradiated rats treated with Lambratene given in a dose of 0.1 mg/g by intraperitoneal injection 5 minutes before exposure, the liver regeneration index reached 79.8%, i.e. the regenerating capacity of the liver was almost fully restored. Treatment of 10 non-irradiated rats with Lambratene caused a slight fall in the regeneration index (to 86.4%), a fact explained by the antimito-Card 2/3

Investigation of the

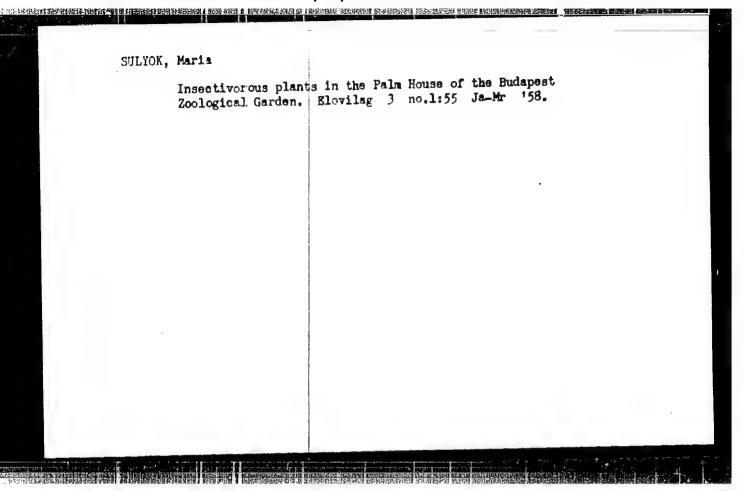
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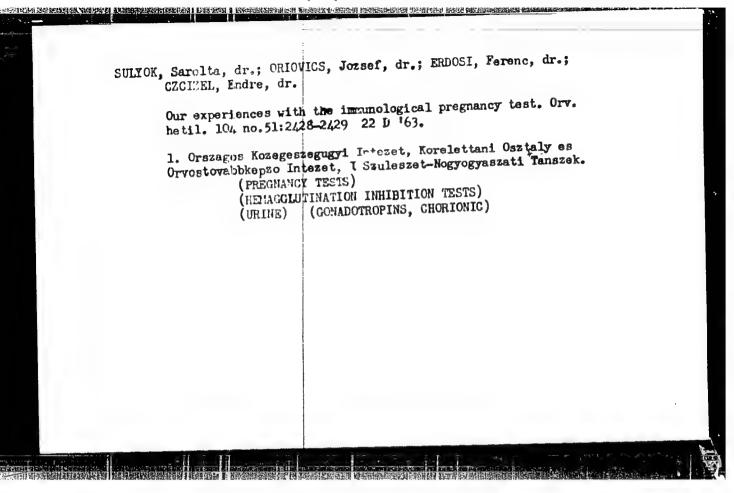
tic effect of that preparation. There are 1 figure and 2 tables.

ASSOCIATION:

Fóvarosi Tanács István Kórház Röntgen Osztály és Országos Közegészségűgyu Intézet Koréléttani Osztály (Department of Radiology, St. Stephen's Hospital, Metropolitan Council of Budapest, and Department of Physiology, National Institute of Public Health)

Card 3/3





L 37014-66 ACC NR AP6028493 SOURCE CODE: HU/0018/65/017/006/0615/0624 AUTHOR: Kertai, Pal; Sulyok, Sarolta N.-Shuyok, S. N.; Domotor, Erzsebet-CRG: Department of Physiology and Pathorhysiology, National Public Health Institute (Orszagos Kozegeszsegugyi Intezet, Elettani es Korelettani Osztaly) TITLE: Investigation of the influence of Salmonella typhi endotoxin on the leucocyte count SOURCE: Kiserletes orvostudomany, v. 17, no. 6, 1965, 615-624 TOPIC TAGS: toxin, drug effect, experiment animal, blood disease, leukopenia, blood, hematology ABSTRACT: The changes in the leucocyte count following i.v. injection of endotoxin have been analyzed. It was determined that only an early leukocytosis can be noted for following injection of a small dose or, in pyrogen-resistant animals, following injection of a larger dise as well. The leukocytosis can be inhibited by section of the spinal cord. The leukocytosis which develops some time after an intermediary or large dose of endotoxin is preceded by leukopenia. This double reaction does not occur when preparatory endotoxin injections are given previously. Doses of endotoxin which cause fulminating leukopenia and pronounced late leukocytosis in normal controls are completely without effect in pyrogen-resistant animals and in those with a severed spinal cord. The experiments led to the conclusion that the leukocyte reaction following endotoxin injection is the result of two different mechanisms. The authors thank Doctor Ujhelyi Karoly, OKI, for providing the preparations. Klara Stark and Edit Katona gave technical assistance. Orig. art. [JPRS: 34,161] 7 figures. SUB CODE: 06 / SUBM DATE: OBFeb65 / ORIG REF: CO8 / OTH REF: O67

SULYOK,	Zoltan							
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PHASE I BOOK EXPLOITATION SOV/3883

Gintsburg, A.K., V.A. Loktin, S.L. Reznikovskiy, B.G. Rozovskiy, M.A. Sulyutin, and A.A. Trakhov

Remont radiostantsiy (Repair of Radio Stations) Moscow, Voyen. Izd-vo M-va obor. SSSR, 1959. 327 p. No. of copies printed not given.

Ed.: P.S. Kiriyenko; Tech. Ed.: Ye.K. Konovalova.

PURPOSE: This textbook is intended for students of communication schools of the Soviet Defense Ministry, and may also be used by Defense Ministry personnel working in army communication repair shops, and by other radio specialists.

COVERAGE: The book deals with radio repair. Detailed information is given on materials and components, testing and repair of components, assembly and disassembly of radio equipment, measurements during testing and repair of radio stations, various methods of radio repair, and repair of power supply sources, transmitters, and receivers. M.A. Sulyutin wrote Ch. I; A.K. Gintsburg wrote Ch. II;

Card 1/11

Repa	air of Radio Stations	S0V/38	383
. 8	and A.A. Trakhov wrote Ch	B.G. Rozovskiy wrote Ch. I VII, VIII, and Section 3 o VI (excepting for Section d. There are no references	of Ch. VI;
TABI	LE OF CONTENTS:		
Fore	word		3
3	I. Radio Engineering Materials as basis of Properties of radio Physical properties Thermal properties Electrical properties Chemical properties Mechanical properties Mineral base solid ins Glass and oxide insulation Structural ceramics Condenser ceramics Vacuum ceramics	construction incering materials ulation	555556688891234 11234
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FOS, Rudolf, Dr.; SULTYA-SZUCS. Jozaef, Dr.

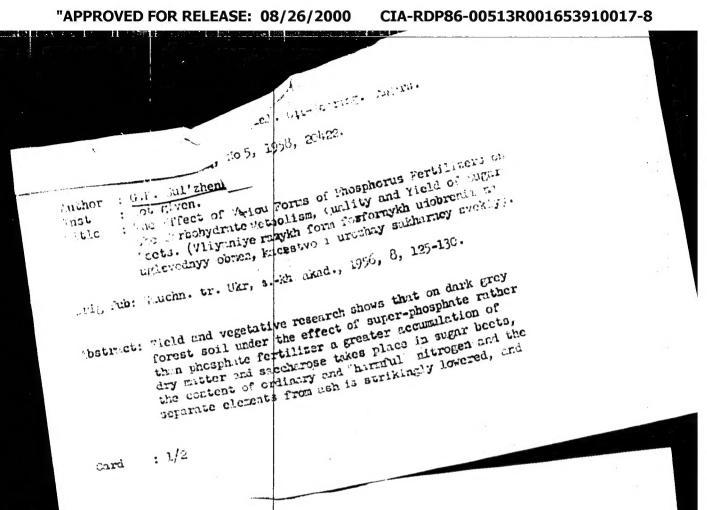
Choice of incision in panaritium. Orv. hetil. 99 no.36:1256-1263 7 Sept 58.

1. A Rudonesti Orvostudomanyi Ryetem II. sz- Sebeszeti Klinikajanak (igazgato: Klinko Dekso dr. egyet. tanar) kozlemenye.

(PARONYCHIA, surg. choice of incision (Hun))

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SUL'ZHENKO, G. K.		us on the Carbon
Dissertation: "The Effect hydrate Metabolism in Plan cultural Inst, Kiev, 1953.	of Various Forms of Phosphorus Fertilize ts With Respect to the Harvest." Cand Ag (Referativnyy Zhurnal-Khimiya, Moscow,	r Sci, Kiev Agri- No 11, Jun 54)
SO: SUM 318, 23 Dec 1954		
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Aus Jeur: For Vang-Stot., No 5, 1958, 20422.

so result of this the sugar beet quality and yield one Unighted. The various forms of phosphorus fertillings die The state of the factors of the period comments of givesso, fructose and celluless.

SUL'ZHENKO, G.K. [Sul'zhenko, H.K.], kand. sel'skokhoz. nauk

Effectiveness of organic mineral fertilizers applied to potatoes in the Ukrainian Polesye. Nauk. pratsi UASHN 17 no.12:69-71 '60.

(Polesye-Corn (Maize) -- Fertilizers and manures)

CIA-RDP86-00513R001653910017-8" APPROVED FOR RELEASE: 08/26/2000

AUTHOR:

Sul'zhenko, L. (Leningrad)

sov/107-58-10-45/55

TITLE:

Balancing the Final Stage (Balansirovka okonechnogo kaskada)

Radio, 1958, Mr 10, p 53 (UBBR)

ABSTRACT:

FERIODICAL:

The author states that the legs of a two-stage low-frequency amplifier must be symmetrical if it is to work normally, and

expounds his own suggestion for doing this. There is 1 circuit diagram.

Card 1/1